



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/633,061	08/04/2000	Hong Joo Kim	8737.20016	1409

30827 7590 08/26/2004

MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER

NGUYEN, HAU H

ART UNIT	PAPER NUMBER
----------	--------------

2676

2/4 22

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/633,061

Applicant(s)

KIM, HONG JOO

Examiner

Hau H Nguyen

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 and 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7 and 11-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed July 22, 2004 with respect to the rejections of claims 1, 5-7 and 11-26 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Kim (U.S. Patent No. 6,262,785).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 19 and 26 recite the limitation "the plurality of signal electrode lines". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

Art Unit: 2676

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 13-14, 18-21, and 25-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim (U.S. Patent No. 6,262,785).

Referring to claims 13, 19, 20 and 26, as shown in Figs. 19, 21, and 23, Kim teaches a mobile device movable between an open position and a close position, having a first liquid crystal display 301 and a second liquid crystal display 321. As shown in Fig. 23, Kim teaches the first LCD display 301 includes a plurality of first signal electrodes 313 and a plurality of first scan electrodes 311. The second LCD display 321 includes a plurality of second signal electrodes 333, and a second plurality of scan electrodes 331. Kim further teaches a control portion 350 (a single operator) is connected to either the first PCB 307 or the second PCB 327 via a signal supply line 340. The control portion 350 applies scanning signals to the common driver ICs 309 and to segment driver ICs 305 and 325, the segment driver ICs 305 and 325 respectively controlling rows of data electrodes 313 and 333 to ON and OFF states (col. 8, lines 34-57).

In regard to claims 14 and 21, as shown in Fig. 22, Kim teach a controller 500 to control the first and second displays.

In regard to claims 18 and 25, Kim teaches the first display device and the second display device are connected to each other by flexible signal lines (col. 3, lines 8-10, and col. 8, lines 48-51).

Claim Rejections - 35 USC § 103

Art Unit: 2676

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 5-7, 11-12, 27, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higginbotham et al. (U.S. Patent No. 5,896,575) in view of Kim (U.S. Patent No. 6,262,785).

Referring to claims 1, 5-7, 11-12, 27, as shown in Figs. 1 and 2, Higginbotham et al. teach a portable radio messaging device 100 having its display 114 in a first (closed) position. The device 100 comprises a display portion 102 and a base portion 104. The display portion 102 and the base portion 104 are rotatably coupled at a common edge by a hinge 106. The display further comprises a first side 116 (first display means) and a second side 118 (second display means) (FIG. 2) facing in opposite directions. Both sides 116, 118 are usable for viewing information displayed on the display 114 (col. 2, lines 15-25). As shown in Fig. 6, Higginbotham et al. teach when the display portion 102 is in the first (closed) position, the permanent magnet 602 is proximate the magnetic reed switch 602, and the magnetic reed switch 604 assumes an operative state which indicates to the processing system 806 that the display portion 102 is in the first (closed) position (col. 3, line 67, and col. 4, lines 1-5). As shown in Fig. 7, Higginbotham et al. teach the display portion 102 is in the second (open) position, the permanent magnet 602 is remote from the magnetic reed switch 604, and the magnetic reed switch 604 assumes state which indicates to the processing system 806 that the display portion 102 is in the second (open) position. (Thus, the switch enables one display and disables another

Art Unit: 2676

display). With reference to Fig. 8, Higginbotham et al. also teach the microprocessor 808 and the display position detector 606 cooperate to flip the displayed image in order to maintain a correct orientation of the image, in response to the display portion 102 being moved from the first (closed) position to the second (open) position (col. 4, lines 36-40). Higginbotham et al. further teach the display 500 (Fig. 5) can be a liquid crystal display device (col. 3, lines 52-54).

Thus, Higginbotham et al. teach all the limitations of claims 1, 5-7, and 11-12, except for an operator for operating the first and second display means.

However, as cited above, and as shown in Figs. 19, 21, and 23, Kim teaches a mobile device movable between an open position and a close position, having a first liquid crystal display 301 and a second liquid crystal display 321. As shown in Fig. 23, Kim teaches the first LCD display 301 includes a plurality of first signal electrodes 313 and a plurality of first scan electrodes 311. The second LCD display 321 includes a plurality of second signal electrodes 333, and a second plurality of scan electrodes 331. Kim further teaches a control portion 350 (a single operator) is connected to either the first PCB 307 or the second PCB 327 via a signal supply line 340. The control portion 350 applies scanning signals to the common driver ICs 309 and to segment driver ICs 305 and 325, the segment driver ICs 305 and 325 respectively controlling rows of data electrodes 313 and 333 to ON and OFF states (col. 8, lines 34-57).

Therefore, it would have been obvious to one skilled in the art to utilize the method of arranging and driving liquid crystal display devices as taught by Kim in combination with the method of switching between display devices in the open and closed positions as taught by Higginbotham et al. in order to increase to the capability of the display device (for example increasing the size of the display device (col. 1, lines 20-24).

Art Unit: 2676

In regard to claims 31 and 32, although Higginbotham et al. does not teach a flexible wire connecting the operator to the first and the second displays, as cited above, Kim teaches the first display device and the second display device are connected to each other by flexible signal lines (col. 3, lines 8-10, and col. 8, lines 48-51).

Therefore, it would have been obvious to one skilled in the art to utilize the method of arranging and driving liquid crystal display devices as taught by Kim in combination with the method of switching between display devices in the open and closed positions as taught by Higginbotham et al. in order to increase to the capability of the display device (for example increasing the size of the display device (col. 1, lines 20-24).

8. Claims 15-17, 22-24, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higginbotham et al. (U.S. Patent No. 5,896,575) in view of Kim (U.S. Patent No. 6,262,785) and further in view of Jahagirdar et al. (U.S. Patent No. 6,125,286).

Referring to claims 15-17, 22-24, as cited above Higginbotham et al. and Kim teach all the limitations of claims 15-17 and 22-24 except for a common light plate for illuminating the first and the second display.

However, Jahagirdar et al. teach a mobile device as shown in Fig. 1, comprising a first display 130 and a second display 132, and a controller 504 (Fig. 5) for generating display data to be displayed at display areas 130 and 132 by selecting one of drivers 514 and 518 to receive display data. Controller 504 controls power to backlight 522 (col. 4, lines 28-40). With reference to Figs. 8A and 8B, controller 504 controls the operation of the mobile device from an open position to closed position (block 800) (Fig. 8A), and from a closed position to open position

Art Unit: 2676

(block 832-834). Jahagirdar et al. further teach the backlight 522 is preferably designed and positioned such that backlighting is provided for both of display elements 516 and 520 (Fig. 5, and col. 4, lines 55-58).

Therefore, it would have been obvious to one skilled in the art to utilize the teachings of backlight for LCD display as taught by Jahagirdar et al. in combination with the method as taught by Higginbotham et al. and Kim in order to reduce power consumption (col. 1, lines 30-35).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 703-305-4104. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

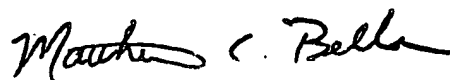
Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth floor (Receptionist).

Art Unit: 2676

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

H. Nguyen

08/19/2004



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600